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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|------------------------------|------------------------|
| 10/786,224 | 02/26/2004 | Burkhard Kuhls | 080437.53236US | 2832 |
| 23911 7590 12/28/2010 CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300 | | | EXAMINER JOHNSON, CARLTON | |
| | | | ART UNIT 2436 | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action
Before the Filing of an Appeal Brief

Application No.

10/786,224

Applicant(s)

KUHL, BURKHARD

Examiner

CARLTON V. JOHNSON

Art Unit

2436

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 December 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1, 3-9 and 12-20.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Nasser Moazzami/
Supervisory Patent Examiner, Art Unit 2436

/C. V. J./
Examiner, Art Unit 2436

Examiner Position:

The arguments were not persuasive in overcoming the currently rejected claims.

Responses to Remarks

1. Public/private key pairs are data structures utilized by software modules or programs to perform cryptographic operations which are used in the protection of data. The software signature site (a software program, module) acting as a user can be the associated owner of the public/private key pair.

2. The claim limitation states: "signing the software against falsification" and "checking the signed software signature site certificate for integrity" (Claim 1).

This limitation discloses that the software is signed. England discloses that software is signed. (see England col. 11, lines 47-51; boot block and all loaded components signed by a trusted source and provided with a certificate; col. 11, lines 54-59: checks digital signature of a component before loading it; signature valid then component has not been compromised and loaded) And, the certificate for the software signature site is signed and the site signature attached to the certificate is checked for integrity (determined tampering). (see England col. 8, lines 7-14: certificate is signed and signature checked for validity of certificate, public/private key pair usage; col. 8, line 66 - col.9, line 3: trusted third party (use digital signature for authentication); trusted third party equivalent to trust center)

The manufacturer of the software (based on specification) is the software signature site. England discloses a manufacturer of the software (OS software). This disclosure appears to be equivalent to the claimed invention. The manufacturer of the software is also the manufacturer of the CPU. This fact of manufacturing the CPU does not negate from the fact that the indicated manufacturer is also the manufacturer of the software which is signed and checked for integrity. The manufacture of the software signs the software and the manufacturer of the software signs the certificate (public/private keys).

The specification on page 6, paragraph [0021] discloses that the software signature site is the manufacturer of the software and that the manufacturer of the software is also the manufacturer of the control unit or entity. England discloses a manufacturer of software. And, England discloses that the software manufacturer signs the software (such as a boot block). Since it is the manufacturer of the software (England discloses) therefore it is the software signature site as per specification. In addition, England discloses that the manufacturer has a public/private key pair. That particular private key is used to sign the software. (see England col. 7, line 63 - col. 8, line 37: manufacturer (CPU, controlling entity for control unit, OS software manufacturer) certificate generated with public/private keys; manufacturer's public/private key pair)

England discloses a software signature site and a public/private key pair used for signing software. (see England col. 7, line 63 - col. 8, line 37: manufacturer (CPU, control entity, OS software manufacturer) certificate generated with public/private keys; manufacturer's public/private key pair)

Ishii discloses the generation of a signature (a standard cryptographic processing function) using a public key of one entity and a secret key of another entity. (Ishii col 5, lines 43-67: signing (signature certificate) by using the secret key of certification issuing center (first public key cryptosystem); deciphering processing using the secret key or encryption processing (signature generation) using the public key or the second public key cryptosystem; cryptographic processing (signature generation using a public key and a secret key)

3. England discloses a control entity or a control unit. (see England col. 8, line 66 - col. 9, line 2: software developer or manufacturer digitally signs software before use; private (secret) key of manufacturer's CPU (control entity)) And, Wong explicitly discloses a control unit for an automobile or vehicle. (see Wong col. 2, lines 21-29; col. 4, line 64 - col. 5, line 8; col. 7, lines 35-39: control unit; software for vehicle control unit)

4. England discloses Claim 7 limitations: 1. a clearing code site signature; 2. a software signature certificate; 3. clearing code data and their signature; and 4. software and its signature. England discloses a certificate (software signature, clearing code signature) which contains a public/private key pair for each particular certificate. England also discloses (see England col. 7, lines 50-54: storage of keys, certificates; manufacture equips the CPU with a pair of public and private keys that is unique to CPU; certificate contains public key)

England discloses the clearing code data (identity) and signature capability for a certification (clearing code certificate. (see England col. 8, lines 26-28; col. 9, lines 4-10: software identity; identity of an authenticated OS)

This is equivalent to the specification on page 3, paragraphs [0010] and [0012], which discloses that the clearing code certificate contains an identifier and the capability to restrict usage to a particular control entity.

5. England discloses a verification step to determine whether signed software has been changed or manipulated. A certificate (no matter what type) is still digital information and its integrity can be checked using digital signature verification procedures. England discloses the verification of whether digital information (a digital certificate) has been modified or changed. (see England col. 11, lines 54-59: checks signature of a component before loading it; if signature valid then component has not been compromised) The Examiner is operating under the assumption that when a component is signed then the component is protected. Any modification or updates to the certificate can be discovered by checking the digital signature.